

INVESTIGATOR'S ANNUAL REPORT

National Park Service

All or some of the information provided may be available to the public

Reporting Year: 1999	Park: Glacier Bay NP & PRES
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Permit #: GLBA1999Hooe1	
Park-assigned Study Id. #: unknown	
Study Title: Fjord estuarine oceanographic patterns at Glacier Bay, Alaska	
Permit Start Date: Jan 01, 1999	Permit End Date: Jan 01, 2000
Study Start Date: Jan 01, 1999	Study End Date: Jan 01, 2000
Study Status: Completed	
Activity Type: Research	
Objectives: Determine the patterns of oceanographic processes at Glacier Bay, Alaska. Develop a long-term monitoring procedure that successfully encompasses the most important variation in oceanographic processes. Oceanographic data have been collected since 1992 as an ancillary product of fisheries research. This is the first year that both USGS and NPS resources have been focused on analyzing these data, developing an integrated data management system, developing protocols for data collection and analysis, and expanding the program to encompass our new understanding of oceanographic patterns.	
Findings and Status: The program is in the beginning stages of data analysis. Twenty-one oceanographic stations were sampled approximately every other month since 1992. Sampling was expanded in FY1999 to include five more stations and will be further expanded in FY2000. The integrated oceanographic GIS completed in FY2000, in time for a Glacier Bay oceanography workshop. As part of this process, we have developed new oceanographic visualization and analysis software. Preliminary analysis has revealed that the paradigm of only winter deep water renewal is incorrect. In addition, upwelling and mixing patterns are much more extensive than previously thought. Glacier Bay appears to be a light-limited system with high productivity in areas with sufficient photosynthetically active radiation.	
For this study, where one or more specimens collected and removed from the park but not destroyed during analyses? No	
Funding provided this reporting year by NPS: 40000	Funding provided this reporting year by other sources: 40000
Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college	

Full name of college or university:	Annual funding provided by NPS to university or college this reporting year: 0
<p>Paperwork Reduction Act Statement: A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Public reporting for this collection of information form is estimated to average 1.38 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the forms. Direct comments regarding this burden estimate or any aspect of this form to Dr. John G. Dennis, Natural Resources (3130 MIB), National Park Service, 1849 C Street, N.W., Washington, DC 20240.</p> <p>Privacy Act Notice: Scientific research, education and collecting activities within units of the National Park System that may impact parks invoke a permitting and reporting requirement per regulations at 36 CFR 1.6 (Permits), 36 CFR 2.1 (Preservation of Natural, Cultural and Archeological Resources), and 36 CFR 2.5 (Research Specimens). The National Park Service collects information about permit applicants and permittees to administer and document research, collecting, and reporting activities within parks. The information disclosed on this form is required and may result in denial of permit applications if not provided.</p>	